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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,247	07/18/2003	Sheldon C. P. Lim	CS01-150	3131
30402	7590	01/26/2006	EXAMINER	
WILLIAM STOFFEL PMB 455 1735 MARKET ST. - STE. A PHILADELPHIA, PA 19103-7502			KIM, PAUL L	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

3K

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/622,247	LIM, SHELDON C. P.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Paul Kim	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-22 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Onyshkevych et al.

With regard to claims 1, Onyshkevych et al teaches a test method comprising: a) obtaining test measurement values on a device of one or more of independent variable values (fig. 1); b) calculating the goodness of fit value for a fitted curve between: the test measurement values and the independent variable values (col. 7, lines 28-30); and c) using the goodness of fit value to monitor the processes used to form the device (fig. 5 & col. 17, lines 51+).

With regard to claims 2 and 3, Onyshkevych et al teaches using control limits on the goodness of fit values; the control limits established based on device requirements (col. 14, lines 5+).

With regard to claim 4, Onyshkevych et al teaches goodness of fit being a correlation coefficient (col. 6, lines 55-67).

With regard to claim 5, Onyshkevych et al teaches the fitted curve being a least squares fitted straight line (fig. 1, F through H).

With regard to claim 25, Onyshkevych et al teaches a test method comprising: a) providing a device that has at least a first test structure in which a test measurement can be obtained (col. 1, lines 15-18); b) calculating the goodness of fit value for a fitted curve between: the test measurement values and the independent variable values (col. 7, lines 28-30); and c) using the goodness of fit value to control the processes used to form the device (fig. 5 & col. 17, lines 51+).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onyshkevych et al in view of Chondroudís et al.

Onyshkevych et al teaches the test parameter being fit score but does not teach the test parameter being capacitance. Chondroudís et al teaches a method of calculating the goodness of fit value for thickness and capacitance (§ 162). Since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations (Ex Parte Masham, 2 USPQ F.2d

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1647 (1987)), it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Onyshkevych et al, so that the test parameter is capacitance, as taught by Chondroudis et al, so as to derive the benefit of increased system versatility by being able to measure a wide variety of variables.

5. Claims 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Onyshkevych et al.

Onyshkevych et al teaches a test method comprising: a) providing a device that has at least a first test structure in which a test measurement can be obtained (col. 1, lines 15-18); b) calculating the goodness of fit value for a fitted curve between: the test measurement values and the independent variable values (col. 7, lines 28-30); and c) using the goodness of fit value to control the processes used to form the device (fig. 5 & col. 17, lines 51+). Onyshkevych et al does not teach the device structure having more than one test structure. Since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art (St. Regis Paper Co. v. Bemis Co., 193 USPQ 8 (1977)), it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Onyshkevych et al, so that more than one test structure is measured, so as to derive the benefit of increased system flexibility by being able to measure a variety of different structures.

6. Claim 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onyshkevych et al in view of Hovde.

Onyshkevych et al teaches the test parameter being fit score but does not teach the test parameters being temperature. Hovde teaches a method of calculating the goodness of fit value being temperature (col. 10, lines 21-31). Since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations (Ex Parte Masham, 2 USPQ F.2d 1647 (1987)), it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Onyshkevych et al, so that the test parameter is temperature, as taught by Hovde, so as to derive the benefit of increased system versatility by being able to measure a wide variety of variables.

***Allowable Subject Matter***

7. Claim 27 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-22 allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach a method for controlling the processing of semiconductor device in which goodness of fit is calculated by dividing the effective length by measured resistance or dividing one by the sheet resistance and another parameter.

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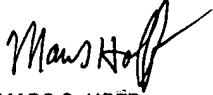
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is 571-272-2217.

The examiner can normally be reached on Monday-Thursday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PK  
January 11, 2006

  
MARC S. HOFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800